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Draft report

Addendum

Chapter III

Recommendations and decisions

E. Space and sustainable development

1. The Committee considered the agenda item entitled "Space and sustainable development", in accordance with General Assembly resolution 72/77.

2. The representatives of Canada, Chile, France, Germany, India, Indonesia, Italy, Japan, Pakistan, the Russian Federation, South Africa and the United States made statements under the item. During the general exchange of views, representatives of other member States also made statements relating to the item.

3. The Committee heard the following presentations under the item:

(a) "UAE space policy alignment with long-term sustainability", by the representative of the United Arab Emirates;

(b) "Italian Space Agency's survey to contribute to the achievement of the Sustainable Development Goals", by the representative of Italy;

(c) "Japan's contribution to disaster management in the Asia and the Pacific region through international cooperation by applying Global Satellite Mapping of Precipitation (GSMaP)", by the representative of Japan;

(d) "Global antenna-sharing project for achieving Sustainable Development Goals", by the observer for UNISEC-Global;

(e) "Enhancing existing capacity-building partnerships and forging new ones", by the observer for African Regional Centre for Space Science and Technology Education — in English Language.

4. The Committee acknowledged the significant role of space science and technology and their applications in the implementation of the 2030 Agenda for Sustainable Development, in particular for the Sustainable Development Goals; in the realization of the Sendai Framework for Disaster Risk Reduction 2015–2030; and in

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the fulfilment by States parties of their commitments to the Paris Agreement on climate change.

5. The Committee noted the value of space technology and applications, as well as of space-derived data and information, to sustainable development, including by improving the formulation and subsequent implementation of policies and programmes of action relating to environmental protection, land and water management, urban and rural development, marine and coastal ecosystems, health care, climate change, disaster risk reduction and emergency response, energy, infrastructure, navigation, seismic monitoring, natural resources management, snow and glaciers, biodiversity, agriculture and food security.

6. The Committee took note of the information provided by States on their actions and programmes aimed at increasing awareness and understanding in society of the applications of space science and technology for meeting development needs.

7. The Committee noted the continued role played by the International Space Station in education and outreach to educational communities worldwide, as well as the efforts of Member States to advance science, technology, engineering and mathematics education.

8. The Committee noted with satisfaction the large number of outreach activities carried out at the regional level to build capacity through education and training in using space science and technology applications for sustainable development. The Committee noted with appreciation the role played in space-related education by the regional centres for space science and technology education, affiliated to the United Nations.

9. The Committee noted with satisfaction the increasing cooperation between advanced and emerging spacefaring countries aimed at enhancing space technology, building capacity and increasing access to space for emerging spacefaring countries, such as the collaboration between the Japan Aerospace Exploration Agency and the Office for Outer Space Affairs on KiboCUBE and the establishment by the Italian Space Agency of an international centre for space education for Africa in Malindi, Kenya.

10. The view was expressed that space science and technology and their applications held immense potential to provide benefits to both developed and developing countries and were key drivers in supporting the attainment of the Agenda 2063 of the African Union and the Sustainable Development Goals of the 2030 Agenda for Sustainable Development, and consequently it was important to ensure that the upcoming 2030 Space Agenda was inclusive.

11. The view was expressed that the Committee should continue to create opportunities to assist Member States in enhancing their capacities and institutional cooperation relating to the use of space technology for sustainable development at various levels of cooperation, and that the support of the international community was needed in providing technical support to developing countries, adequate resources for the transfer of knowledge and capacity-building relating to space technology.

F. Spin-off benefits of space technology: review of current status

12. The Committee considered the agenda item entitled "Spin-off benefits of space technology: review of current status", in accordance with General Assembly resolution 72/77.

13. The representatives of India, Pakistan, South Africa and the United States made statements under the item.

14. The publication *Spinoff 2018*, submitted by the National Aeronautics and Space Administration (NASA) of the United States, was made available to the Committee. The Committee expressed its gratitude to NASA for making its publication *Spinoff*,

which had been available to the delegations every year since the forty-third session of the Committee, held in 2000.

15. The Committee agreed that spin-offs from space technology constituted a powerful engine for technological innovation and growth in both the industrial and service sectors and that spin-offs had helped to improve public service delivery through modern communications infrastructure and to open new avenues of scientific and technological innovations, and had enabled sustainable growth in the global space industry. It also agreed that spin-offs could be applied to achieve social and economic objectives and the Sustainable Development Goals.

16. The Committee took note of the information provided by States on their national practices regarding spin-offs from space technology involving various actors, including from the private sector and academia, that had resulted in the introduction of strategies for the management of regional economic development.

17. The Committee took note of innovations in numerous scientific areas, such as health, medicine, the environment, education, communication, transport, dentistry, safety, biology, chemistry and materials science. It further took note of practical applications for society, such as the use of enhanced robotics in medicine and of colour photometry to monitor water levels for the benefit of agriculture, and the use of enhanced technologies to reduce energy consumption, to improve techniques in lubrication, cutting and drilling, and to facilitate resource exploration, infrastructure improvements, firefighting, geographical positioning, navigation and the tracking of search and rescue personnel.

18. The Committee noted that Governments had continued to develop national policies directed specifically at disseminating space technologies and actively promoting spin-offs by streamlining licensing and procedures to protect intellectual property in order to facilitate and support the market entry of products derived from space technology by start-up companies.

19. The Committee agreed that the use of spin-offs from space technology should be further promoted because they advanced economies through the production of innovative technologies, thereby improving the quality of life.

G. Space and water

20. The Committee considered the agenda item entitled "Space and water", in accordance with General Assembly resolution 72/77.

21. The representatives of Canada, France, India, Indonesia, Japan, Nigeria, Pakistan and South Africa made statements under the item. During the general exchange of views, other member States also made statements relating to the item.

22. The Committee heard the following presentations under the item:

(a) "Water from space: a Chilean perspective", by the representative of Chile;

(b) "UNESCO World Water Quality Portal powered by satellite remote sensing", by the representative of Germany.

23. In the course of the discussion, delegations reviewed water-related cooperation activities, giving examples of national programmes and bilateral, regional and international cooperation.

24. The Committee noted that water and related issues were becoming one of the major concerns of humankind. The Committee also noted that to attain the Sustainable Development Goals it was important to make use of space technologies and applications, as well as of the practices and initiatives made possible through the space-borne observations of water.

25. The Committee noted that a large number of space-borne platforms addressed water-related issues and that space-derived data were used extensively in water

management. The Committee also noted that space technology and applications, combined with non-space technologies, played an important role in addressing many water-related issues, including the observation and study of oceans and coastal aquifers, global water cycles and unusual climate patterns, the mapping of watercourses, aquatic weeds and algal blooms, the rehabilitation of water systems, the monitoring of glaciers, the estimation of snowmelt run-offs, the planning and management of reservoirs and irrigation projects, the monitoring and mitigation of the effects of floods, droughts and cyclones, the management of conventional and non-conventional water resources, including fossil groundwater, the reuse of agricultural drainage water, the desalination of sea and brackish water, the reuse of municipal wastewater, the harvesting of rain and the improvement of the timeliness and accuracy of forecasts.

26. Some delegations expressed the view that climate change had become a crucial issue for stable water management, as climate change had caused serious droughts and water-related disasters globally.